

**A Study on perception of Students' toward e-learning during
COVID-19 Lockdown Phase in India**

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ABSTRACT

In the present study an attempt has been made to identify the perception of students towards e-learning amid COVID-19 lockdown period in India. It also aimed to assess the effectiveness of the e-learning mode of imparting education during this period of pandemic. Besides secondary data, the primary has been collected through a structured questionnaire with close ended questions. The respondents were the students who have used online mode of learning during lockdown period pertinent to COVID-19 pandemic. The single cross sectional descriptive research design has been used. For the purpose of data analysis, frequency, Mean, Percentages, bar diagram have been used. The Microsoft Excel has been utilized for the same.

In this study it is found that majority of respondents are using online learning for the completion of their regular education program, significant number of respondents have used e-learning mode for the first time during lockdown, and majority of the respondents are using smart phones for attending sessions and finding e-learning platform to be user friendly. The factors which primarily hinder the effectiveness of these online sessions have been identified as availability of suitable device, network issues, and technical complexities and enforced use of e-learning mode without having adequate infrastructural facilities.

Keywords: E-learning, perception, effectiveness, COVID-19

1. Introduction:

Novel Coronavirus (COVID-19) pandemic has considerably disrupted every aspect of human life. As the COVID-19 spread across the globe, alarm bells are sounding in the education sector. The Covid-19 pandemic has forced educational institutes to shut down temporarily and is causing havoc in the education system. Due to this, most educational institutes have shifted to online learning platforms to complete their prescribed syllabi in the stipulated time frame in line with the academic calendar. During this time, most of the institutes have shifted to online mode using Blackboard, Microsoft Teams, Zoom, or other online platforms. Undoubtedly, these platforms are significantly contributing to the transformation of the mode of imparting education.

The adoption of technology in education has led to an unprecedented shift from teacher-centric education towards student-centric education. Virtual classrooms and various online tools are helping to endure and improve the engagement between the teacher and students as close to the classroom type experience. In response to the challenge of colleges and schools being shut, central government, state governments and private players have turned up with various initiatives to support and benefit the students. Ever since the lockdown started, the government has taken numerous measures to ensure that the impact of the crisis on education is the least. To help students continue their learning during the pandemic, various e-learning portals have been launched by the government and education bodies such as DIKSHA portal, e-Pathshala, Swayam, STEM based games, etc.

The study is even more appropriate considering that in India the system of online education has never been tried at this scale and this is like a massive social experiment. Therefore, this study is an attempt to evaluate the perception of the students towards e-learning, to understand their challenges and expectations during online learning. This study would be more useful to all the educational institutes in deciding the learning environment in online platform to promote effective learning.

2. Review of Literature

With the COVID-19 -a novel corona virus disease spreading across the globe. It has affected social, political, economic, religious and financial structures all over the world. First case of Covid-19 in India was found on 30 January 2020 in the state of Kerala. As the number of confirmed cases reached to 500, on 24 March 2020, the Government of India under Prime Minister Shri Narendra Modi ordered a nationwide lockdown for 21 days, limiting movement

of the entire 1.3 billion population of India as a preventive measure against the COVID-19 pandemic in India. At the end of the first lockdown period moved towards, the lockdown was extended up to 1 May 2020. In order to limit movement of the people, reducing contact and controlling community wide spread of Covid-19, the services of all education and training institutions were temporarily stopped. The education institutions were advised to shift towards virtual classes/e-learning for the continuation of learning process for the students.

T, Muthuprasad and S, Aiswarya and Aditya, K.S. and Jha, Girish K. (2020) aimed to understand Agricultural Student's perception and preference towards the online learning. Online survey has been conducted from 307 students.. It is found that 70% of the respondents are ready to opt for online classes to manage the curriculum during this pandemic. Maximum no of students' prefer to use smart phone for online learning. Content Analysis has been used. It is found that students choose recorded classes with quiz at the end of each class to improve the efficiency of learning. Flexibility and convenience make the online classes more attractive. Whereas broadband connectivity is the major challenge faced by students to make effective use of online learning initiatives. They understood the student's preferences for various attributes of online classes, which will be helpful to designing effective online learning environment.

Agarwal S., Kaushik J. (2020) conducted a study to understand Student's Perception of Online Learning during COVID Pandemic. They collected responses from 77 participants. Of these, 87% (67) were post-graduate students. 97% participants found the sessions to be relevant to their learning needs and clinical practice and 99% of the participants perceived that the sessions were tailored to their level of learning. It is also found that 95% of the students feel that the sessions to be interesting and enjoyable All of the participants felt that each paediatric sub-specialty should start their classes for postgraduates, and that online classes should be made a part of the medical postgraduate curriculum.

Nagar S. (2020) made an attempt to understand the perception of students towards e-learning during COVID-19 lockdown period in India. It also aimed to evaluate the effectiveness of the e-learning mode of imparting education during this COVID 19 lockdown period. Researcher has used primary data. It is collected with the help of self-administered questionnaire and by using close ended questions. The respondents were the students who have used online mode of learning during lockdown period of COVID-19 pandemic. The single cross-sectional descriptive research design has been used. Pie charts, bar diagram, cross tabulation, Cronbach's Alpha, Chi-squares and ANOVA have been used to analyse the data. She found that maximum number of respondents are using online learning for the completion of their

syllabus according to Academic calendar. Maximum number of respondents have used e-learning mode for the first-time during lockdown. Smart Phones are widely used for attending sessions and finding e-learning platform to be user friendly. Availability of suitable device, network issues, and technical complexities and enforced use of e-learning mode without having adequate infrastructural facilities are the major factors which majorly hinder the effectiveness of these online sessions.

Patil Abhishek (2020) conducted research in understanding trends in online learning during COVID 19 Pandemic, Results indicated that 72 % Indians prefer online or e-learning as compared to Physical classroom training. Indian demography is suitable for online learning because many of the students come from rural or semi-rural areas where educational facilities, be it school, college or entrance examination level, is below par. Due to Covid-19 outbreak educators and learners at all levels in the globe shifted to e-learning techniques, the figure is leaped to rise dramatically. It is found that traditional learning facilitates the student's easy understanding of the subject through due to direct interaction with the teacher but online learning gives the learners more flexibility in terms of courses and time. In addition, the educations provided by the existing universities are also not able to meet the standards set out by India Inc. Also, professionals find it easier to up skill themselves through e-learning courses that can be taken at their own convenience while managing their jobs, Research has predicted that the Indian online education market will be around 2 billion US dollars in 2021, with a growth rate of 52 per cent.

Mahajan M, Kalpana. R (2018) aimed to assess students' perceptions about e-learning. Researcher has found that implementing e-learning would improve performance in 99% students with 74% indicating better understanding of the course. 75% of the students agree that they will have ready access to e-learning courses while other are not getting due to lack of constant supply of internet. 38% of students agree e-learning is disadvantages as it will replace faculties as they are comfortable with the traditional teaching style, while 26% disagree. 58% of Male respondents and 64% female respondents think student will skip traditional classes while 37% of students would be distracted. Around 90% of students disagree with adapting difficulties on implementing newer e-learning modules and tools while the others agree due lack of

training. It is also suggested that it would help in a newer teaching learning experiences on the campus.

Sunkara, VenuMadhav, Kurra, Rajasekhara Rao (2017) aimed to understand the tendencies of existing learners about the use of e-learning systems in teaching and learning process and the challenges faced in the existing e-learning systems or learning management systems (LMS). Researcher has found that there is a need for customised and more user-friendly e-learning systems with possible moderator support to satisfy the needs of existing learners.

Chandrasekar et al (2013) conducted study on ICT in their learning process and had assessed their knowledge and perceptions of the possible effect of ICT application, in the subject of Surgery. He has collected data of 180 medical students. Maximum no of students was confident with computer usage and its applications and visited various educative sites, but the browsing information on those sites or the cited references were substandard. So as to bring about a good quality literature search, for those generating level A evidences and practice, it is imperative that a well-accepted LMS be monitored by trained educators with proper infrastructure be used at our Institution, as 90% are tech savvy, 89% claim to have no difficulties towards adaptation of such technologies and 99% ascertain that such tools can better their performances.

Azliza, et al. (2012), where the awareness of e-learning that involves students from the University College in Malaysia as respondents was examined by a multiple regression analysis. A survey was conducted for assessing the students' perceptions in relation to the gender, year of study, faculty, technology usage and the awareness of e-learning implementation.

Above literature reveals that different models which provide the basic framework to assess the students' perception regarding e-learning. Papers have also aimed to understand benefits and challenges for success of the e-learning. In developing country like India, maximum no of educational institutions has used online learning for the first time during COVID 19 Lockdown. India. Therefore, this study is an attempt to understand challenges, Expectations and students perceived satisfaction in online learning during COVID 19 Lockdown.

3. Research Gap and Problem Statement:

The literature reviewed identifies the various studies which has been conducted to assess the insights of the students towards online or e-learning. But very few of the studies were focused on the satisfaction level of the e-learners. The research gap is instituted when it comes to

study the perception of the students towards online or e-learning during this Covid-19 epidemic circumstances in India, when this type of studies would be the most effective learning process. The study would also define the challenges encountered by students in e-learning during the pandemic situation. Based on the gaps identified from the literatures the following research questions have been framed:

1. What is the impact of Covid-19 on teaching learning of Students?
2. What is the perceived usefulness of e-learning among students?

4. Objectives of the study:

The following objectives have been defined based on the research gap and research questions framed for the study:

1. To identify the perception of the students on the way to e-learning during Covid-19 pandemic
2. To identify challenges encountered by students during Covid-19 lockdown phase.
3. To understand students' shift from traditional way of teaching to e-learning.
4. To recognize students' expectations to limit the impact of the coronavirus on their teaching learning process.

5. Research Methodology:

Present study is based on Empirical Research. To study the objectives, researcher has distributed questionnaire to the respondents through Google forms. Google form includes Challenges faced by students during COVID 19 lockdown, Perception of students towards e-learning during Covid-19, Expectations students to limit the impact of the coronavirus on their teaching learning process.

The scope of the research was the Maharashtra. Convenient sampling technique was used to draw sample from population. Total sample Size was 118. Samples were collected from different areas of Maharashtra. The data is collected during the Lockdown 4 i.e from 26/04/2020 to 28/04/2020

Collected data are classified using electronic spread sheet; various statistical tools like Frequency, Percentages and Ranks are used to analyze the data.

6. Data presentation and interpretation:

The data thus received from the respondents have been analyzed as below to reach into appropriate conclusion for the research

Table 1: Impact of COVID 19 on teaching Learning Process of students

Sr. No	Level of Agreement	Frequency	Percentages	Mean
1	Fully Disagree	3	2.54	3.94
2	Somewhat disagree	10	8.47	
3	Average	25	21.19	
4	Somewhat Agree	33	27.97	
5	Fully Agree	47	39.83	

Source: Field data

Above table shows that majority of students' i.e. 39.83% strongly agreed that there is high impact of COVID 19 on teaching learning processes. Only 2.54% of the respondents opined that there is no impact of COVID 19 on teaching learning process of students. The mean score is 3.94 which shows majority of the respondents agree that there is an impact of COVID 19 on teaching learning process.

Table 2: Student's perception about shift from Traditional education to online education

Sr. No	Level of Agreement	Frequency	Percentages	Mean
1	Most Challenging	21	17.80	2.80
2	Least Challenging	21	17.80	
3	Average	47	39.83	
4	Acceptable	19	16.10	
5	Easily Acceptable	10	8.47	

Source: Field data

Due to COVID 19 Pandemic, there is sudden shift in education from physical class room to online education. Around 39.83% students are neutral about their perception about shift from Traditional education to online education. 17.8% of students feel that shift towards online learning is challenging. Only 8.47% of respondents easily accepted the shift from Traditional education to online education. The mean score is 2.80 which shows majority of the respondents are not easily accepting sudden shift from Traditional education to online education.

Table 3: Students level of Agreements towards quality of online learning

Sr. No	Level of Agreement	Frequency	Percentages	Mean
1	Fully Disagree	27	22.88	2.46
2	Somewhat disagree	41	34.75	
3	Average	24	20.34	
4	Somewhat Agree	21	17.80	
5	Fully Agree	5	4.24	

Source: Field data

Above table 3, shows whether online learning has same quality as face to face learning. 41% of respondents are opined that there is no more difference in quality of online learning and Face to face learning. Only 4.24% students feel that there is difference in quality of online learning and Face to face learning. The mean score is 2.46 which shows majority of the respondents are showing that there is same quality in online learning.

Table 4: Students interest towards studying curriculum online during COVID 19 Pandemic

Sr. No	Level of Agreement	Frequency	Percentages	Mean
1	Fully Disagree	13	11.02	3.28
2	Somewhat disagree	17	14.41	
3	Average	32	27.12	
4	Somewhat Agree	36	30.51	
5	Fully Agree	20	16.95	

Source: Field data

Above table shows students interest towards studying curriculum online during COVID 19 Pandemic. Around 31% of respondents are interested to learn their curriculum online during COVID 19 Pandemic. Only 11.02% students have not shown their interest in online learning. The mean score is 3.26 which shows majority of the respondents are showing their involvement in studying curriculum online during COVID 19 Pandemic.

Table 5: Perception of students' towards e-learning

Sr. No	Particulars	Mean	Rank
1	E learning provides an opportunity to learn on your own pace	3.91	2
2	E -learning is cost effective and time saving.	3.85	3
3	E-learning can enable people to study, irrespective of where they are located in the world.	4.1	1
4	E learning demands more self-discipline and self-motivation to learn effectively	3.7	4
5	Studying through e learning mode can increase my learning effectively, as I have easy access to learning materials (e.g. reading documents and recorded videos)	3.34	6
6	Learning electronically can improve my course performance as I do not need to travel to campus, but study at the comfort of my home	3.08	7
7	Studying through e- learning mode provides the flexibility to study at the time convenient to the learner.	3.48	5

Source: Field data

The results of above table show perception of students' towards e-learning. The mean score is 3.91 which shows majority of the respondents are agree that at their own pace of learning they can learn through online mode. Similarly, 3.85 mean score shows the majority of the respondents feel that the e-learning platforms offer their courses at low prices in comparison to fees charged for regular conventional courses. Online learning also saves the commutation cost and time of travelling to campus to attend regular classes.

The e-learning is said to be free of geographical boundaries. The Majority of respondents had given their strong agreement to the statement which says that e-learning can enable people to study; irrespective of where they are located in the world. The mean score is 4.1 which supports that majority of the respondents are comfortably agreed to the statement. Also, majority of the respondents were agreed to the statement that e-learning demands more self-discipline and self-motivation to learn effectively. For the same the mean score is

3.7 which shows that majority of the respondents believe that self-discipline and self-motivation is required to pursue any course through online mode.

Majority of the respondents preferred to be neutral when it comes to an easy access to study material in case of online sessions which may have positive impact on learning. The mean score is 3.34 which goes with the overall neutral opinion of the respondents about the easy access to study material and videos and its positive impact on learning. Maximum no of the respondents have neutral opinion about having improvement in course performance as e-learning save travel time and provide an opportunity to study at the comfort of the home. The mean score is 3.08 which supports the neutral opinion of most of the respondents.

Majority of the respondents have given their agreement to the statement that studying through e-learning mode provides the flexibility to study at the time convenient to the learner 29% of the respondents are neutral about the same. The mean score is 3.48 which supports neutral opinion of the respondents.

Table 5: Challenges Faced by students during COVID 19 Pandemic

Sr.No	Challenges	Percentages	Rank
1	Network Problem	16	3
2	Availability of Employment	7	6
3	Hands on Learning	3	7
4	Practical Exposure in Industry (Industrial Visit, Summer Internship, Small Projects)	22	2
5	Library Access	2	8
6	Future plans are most affected now fresh have a battle in recession.	9	5
7	We are not getting what we supposed to get during MBA	11	4
8	All of the above	30	1

Source: Field data

During Covid-19 Pandemic, sudden shift from face to face learning to online learning created many challenges for Students, Around 30% of Students facing Practical Exposure in Industry (Industrial Visit, Summer Internship, Small Projects), Network Problem, Availability of Employment, Hands on Learning, Library Access, Future plans are most affected now fresh

have a battle in recession, not getting what we supposed to get during MBA. Only 8 % students facing the problem of Library Access as a challenge during this pandemic time

Table 6: Effect of COVID 19 Pandemic on tuition fees

Sr. No	Particulars	Percentages
1	Yes (They should be reduced or discounted)	78%
2	No (They should be same)	6%
3	Unsure	16%

Source: Field data

During COVID 19 outbreak, physical classroom education have shifted to online 78 % of students says that there should be reduction in tuition fees. 16% of respondents are not sure about the effect of COVID 19Pandemic on Tuition fees.

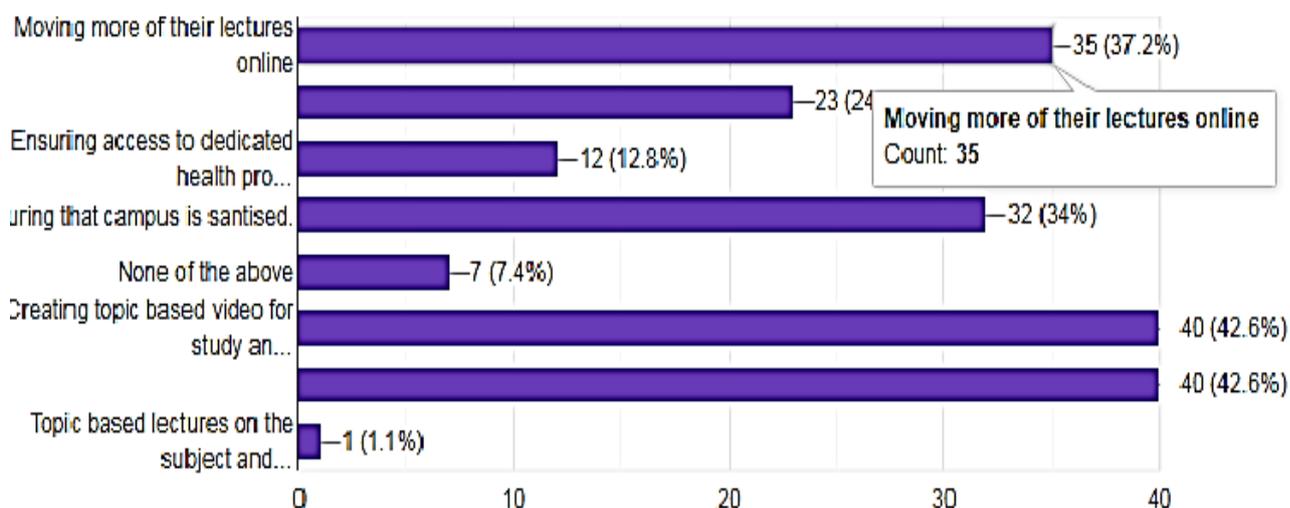
Table 7: Student’s opinion on reduction in Tuition fees

Sr. No	Particulars	Percentages
1	Less than 10%	7
2	10%- 20%	27
3	20%- 30%	43
4	More than 30%	23

Source: Field data

Above table shows students opinion on reduction in Tuition Fees. 45% of students expect that there should be 20-30% reduction in Tuition fees. Only 7 % of students expect that there should be less than 10% Reduction in Tuition Fees.

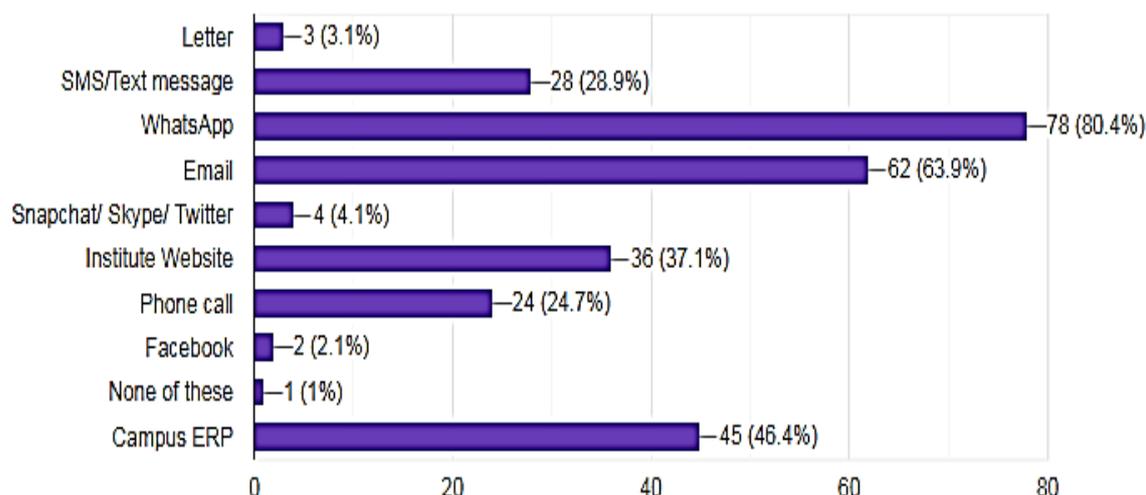
Graph 1: Students Expectations from institute to limit the impact of the COVID 19 Pandemic



Source: Field data

Institutes should create topic based video for study and replying to doubts (40%), moving more of their lectures online (35%) and Ensuring that campus is sanitised (32%) are the major expectations of students to limit the impact of the COVID19 Pandemic.

Graph 2: Preferred sources of information to get updates from Institutes



Source: Field data

Above graph 2 reveals that students preferred sources of information to get updates from Institutes. WhatsApp (80.4%), Email (63.9%) and Campus ERP (46.4%) are the most preferred sources of information used and Facebook, Letter and Snapchat/ Skype and Twitter are least preferred sources for getting updates from Institutes.

Table 8: Frequency for getting an updates from Institute

Sr. No	Frequency	Percentages
1	Daily or more	49
2	A few times a week	29
3	Once per week	8
4	Fortnightly or less	1
5	I wouldn't want to hear any information from Institutes	0
6	Once a week but with all updates and information so nothing is left	13

Source: Field data

During online education, 49% of students would like to receive daily updates from institutes and 29% of students would like to receive updates few times in a week from institutes. They would like receive update on Examination Schedule, Lecture schedule n Administration details.

7. Major Findings:

1. It has been observed that the circumstances led to forced immersion of students who were using conventional learning mode, into e-learning during this period of COVID-19 Lockdown. The significant number of respondents used this online learning mode for the first-time during lockdown phase. But they are comfortable with the use of technology and interacting with instructor during sessions
2. The unplanned diversion from conventional learning to e-learning has given recognition to the considerable role of a teacher and class mates on the learner's performance and pace of learning.
3. This sudden and compulsive shift from face to face teaching to online mode of teaching has significantly affected the perception of the students towards e-learning.
4. The major determinants to gauge the effectiveness of e-learning in India have been identified as availability of suitable device, familiarity to the use of technology and required infrastructural facilities.
5. The network/internet issues are posing major challenges to success of online sessions in India which also highlights digital divide across the country.
6. The device being used for attending sessions has been identified as major determinant to decide the degree of user friendliness of e-learning platform as well as an effectiveness of the sessions.
7. The network/internet issues are posing major challenges to success of online sessions in India which also highlights digital divide across the country.
8. There is considerable percentage of the respondents who have used the e-learning mode of education for the first-time during lockdown phase which affects the perception of the students towards e-learning as well as effectiveness of the sessions.
9. This sudden and compulsive shift from face to face teaching to online mode of teaching has significantly affected the perception of the students towards e-learning.
10. The major determinants to gauge the effectiveness of e-learning in India have been identified as availability of suitable device, familiarity to the use of technology and required infrastructural facilities.

8. Conclusion:

The face to face learning method is no longer appropriate during the unusual phase of Covid-19 pandemic as the educational institutions have been temporarily closed to avoid the further spread of Covid-19.

In order to continue teaching and learning practices in educational institutions, our education system has resorted to an imperfect yet quick solution to the crisis. Undoubtedly, this transformation of mode of education and its spontaneous trial has assured a reckonable share of digitalization in Indian education system in future. With an adequate consideration to geographical, social, financial and infrastructural inequalities in India, a multi-dimensional strategy is indispensable to manage the present crisis and to build a resilient education system in the long term.

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